



# Indiana Crop & Weather Report

INDIANA AGRICULTURAL STATISTICS  
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## CROP REPORT FOR WEEK ENDING MAY 30

Most farmers have finished planting corn and concentrated on planting soybean acreage last week. It has been a near perfect season for planting crops along with other field activities this year, according to the Indiana Agricultural Statistics Service. Cutting and baling of hay made good progress last week. Scattered showers in some areas helped corn and soybean development.

### CORN AND SOYBEANS

**Corn** planting is virtually complete in the northern and central regions of the state and 95 percent complete in the southern districts. Last year, corn planting was 89 percent complete and the 5-year average is 80 percent. Ninety-one percent of the corn crop has **emerged** compared with 71 percent a year ago.

**Soybean planted** acreage advanced to 91 percent complete, far ahead of last year's 66 percent and the 5-year average of 57 percent. Soybean planting is only 2 days behind the record pace of 93 percent established in 1988. By area, soybean planting is 93 percent complete in the north, 94 percent in the central region and 80 percent in the south.

### WINTER WHEAT

Ninety-eight percent of the **winter wheat** acreage is **headed**, on par with last year and ahead of the 72 percent for the 5-year average. The **condition** of the winter wheat was 86 percent good to excellent compared with 71 percent last year.

### OTHER CROPS

**Pasture condition** was rated 17 percent excellent, 65 percent good, 16 percent fair, and 2 percent poor. Transplanting of tobacco is 42 percent complete, compared with 25 percent last year and 19 percent for the average.

### DAYS SUITABLE and SOIL MOISTURE

For the week ending Friday, 4.7 days were rated **suitable for fieldwork**. **Topsoil moisture** was rated 1 percent very short, 10 percent short, 84 percent adequate and 5 percent surplus. **Subsoil moisture** was rated 1 percent very short, 10 percent short, 83 percent adequate and 6 percent surplus.

#### CROP PROGRESS

Crop	This Week	Last Week	Last Year	5-Year Avg
Percent				
Corn Planted	99	98	89	80
Corn Emerged	91	77	71	NA
Soybeans Planted	91	78	66	57
Soybeans Emerged	67	44	37	NA
Wheat Headed	98	78	98	72

#### CROP CONDITION

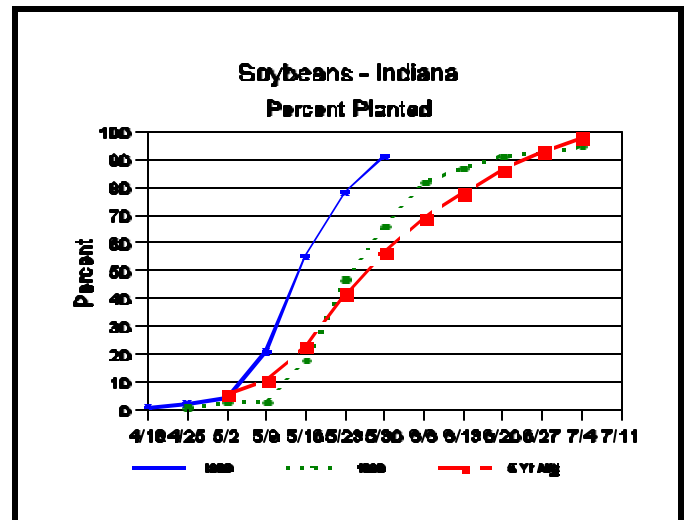
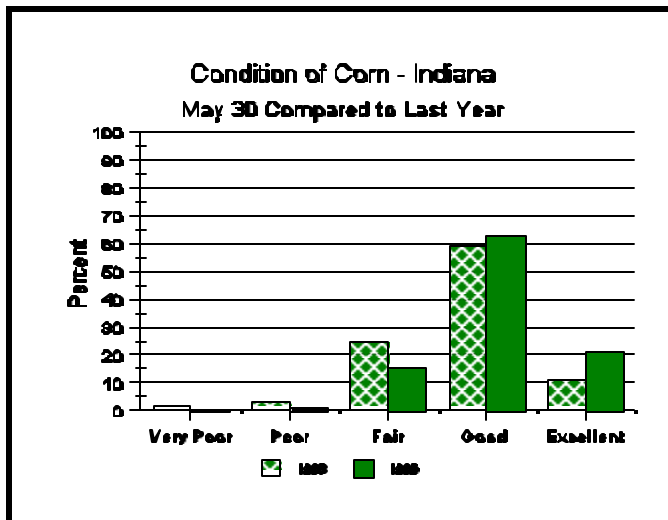
Crop	Very Poor	Poor	Fair	Good	Excellent
Percent					
Corn	0	1	15	63	21
Winter Wheat	0	2	12	57	29
Winter Wheat	1	6	22	52	19
Pasture	0	2	16	65	17

#### SOIL MOISTURE

	This Week	Last Week	Last Year
Percent			
<b>Topsoil</b>			
Very Short	1	1	4
Short	10	11	14
Adequate	84	78	54
Surplus	5	10	28
<b>Subsoil</b>			
Very Short	1	1	2
Short	10	11	8
Adequate	83	78	69
Surplus	6	10	21

--Ralph W. Gann, State Statistician  
--Bud Bever, Agricultural Statistician  
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## Crop Progress



### Assessing Frost Damage to Young Corn

— Most Important Advice: Be Patient!

Assessing the effects of late spring frost damage to young corn can be easy or difficult depending on subsequent weather conditions and the emotions of the involved players. The damaged corn plants will tell you by the extent of their recovery how severe the frost damage actually was. The bottom line on frost damage assessment is PATIENCE.

Patience is required because plant recovery from frost damage may not be visible for several days or longer after the incidence of the frost event. Given the warm weather forecasted for the region over Memorial Day weekend, evidence of recovery or death will occur more rapidly than if temperatures were cool.

#### **Health of the Growing Point**

As with most early-season injuries to corn, the recovery of frosted corn depends greatly on whether the internal growing point region was damaged. Fortunately, the growing point region of corn remains below ground from planting to about 6-leaf collars (about 12 inches tall).

While below-ground, the growing point region is relatively protected from direct frost injury. Beginning at about 6-leaf collars, the stalk begins to elongate and the growing point region (located at the upper end of the stalk tissue) soon elevates above-ground and becomes more susceptible to frost injury.

You can split corn plants vertically and inspect the growing point region for damage. The growing point region is located near the top of the pyramid-shaped stalk tissue below the rolled up leaves of the split stem. Healthy stalk tissue will be yellowish-white and firm, while damaged tissue will be discolored and soft or "water-soaked". Healthy leaf tissue rolled up in the whorl will be yellowish-green to green, while damaged tissue will be more gray (initially) and/or decomposing.

#### **Evaluate Plant Recovery**

The problem with inspecting growing points is that cool weather subsequent to a frost can delay the deterioration of injured plant tissue, resulting in a false impression of healthy appearance of the growing points. The best way to assess the impact of frost damage to young corn is to leave the field alone for three to five days, then evaluate the degree of plant recovery.

(Continued on page 4.)

# Weather Data

## Week ending Sunday May 30, 1999

Station	Past Week Weather Summary Data							Accumulation				
	Air					Avg		April 1, 1999 thru				
	Temperature			Precip.		4 in		May 30, 1999				
						Soil		Precipitation GDD Base 50°F				
	Hi	Lo	Avg	DFN	Total	Days	Temp	Total	DFN	Days	Total	DFN
Bloomington	85	45	63	-5	0.28	1		8.43	-0.10	25	635	+90
Bluffton	86	39	61	-4	1.24	2	61	5.31	-1.87	21	527	+92
Butlerville	84	39	61	-7	0.46	1	65	7.36	-0.99	31	603	+14
Castleton	85	40	60	-7	0.15	1		7.00	-1.02	30	577	+83
Crawfordsville	84	38	60	-7	0.07	1	62	7.21	-0.77	25	469	-31
Dubois_Ag	83	42	62	-5	0.29	1	69	6.95	-1.90	26	658	+103
Evansville	84	46	64	-6	0.61	2		9.01	+0.38	22	758	+83
Farmland	86	36	61	-4	0.34	2	56	6.59	-0.65	30	508	+133
Fort_Wayne	86	38	60	-5	1.18	2		8.79	+2.09	26	495	+96
Freelandville	83	47	64	-4	0.19	1		7.82	-0.94	26	638	+82
Greenfield	84	42	61	-6	0.22	1		6.02	-2.16	30	568	+99
Indianapolis_AP	84	40	61	-6	0.23	1		7.70	+0.12	30	640	+125
Indianapolis_SE	84	42	61	-6	0.35	2		6.60	-1.42	33	550	+56
Logansport	86	41	61	-4	0.53	1		8.77	+1.67	26	518	+98
New_Castle	82	37	58	-6	0.35	1		6.71	-1.64	28	453	+67
Perrysville	85	45	63	-4	0.09	1	70	7.08	-0.71	27	589	+121
Plymouth	89	39	60	-5	0.65	2		9.69	+2.16	27	498	+52
Scottsburg	86	43	62	-6	0.31	1		5.67	-2.84	21	673	+113
Shoals	84	44	61	-6	0.00	0		7.31	-1.90	21	606	+70
South_Bend	87	41	61	-3	0.41	2		8.71	+1.79	26	519	+141
Tell_City	85	49	64	-5	0.51	2		8.73	-0.73	16	748	+122
Terre_Haute_Ag	86	45	62	-5	0.18	1	70	7.17	-1.06	21	704	+178
Tipton_Ag	84	38	59	-6	0.36	1	60	6.62	-0.98	24	457	+69
Valparaiso_Ag	86	42	63	-2	0.58	1		8.46	+0.77	25	505	+106
Vincennes_5NE	84	43	63	-4	0.23	2	66	8.87	+0.11	31	660	+104
Wanatah	88	37	60	-4	0.57	1	65	8.82	+1.49	26	389	+37
W_Lafayette_6NW	87	43	62	-4	0.47	1	68	9.47	+1.99	23	534	+108
Wheatfield	88	43	63	-2	0.25	1		9.38	+2.26	22	515	+137
Winamac	87	44	61	-4	0.50	1		9.95	+2.87	24	515	+91
Young_America	85	41	60	-5	0.54	1		6.56	-0.54	25	469	+49

DFN = Departure From Normal (Using 1961-90 Normals Period).

GDD = Growing Degree Days.

Precipitation (rain or melted snow/ice) in inches.

Precipitation Days = Days with precipitation of 0.01 inch or more.

Air Temperatures in Degrees Fahrenheit.

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## Frost (Continued)

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After three to five days, surviving corn plants should be showing new leaf tissue expanding from the whorls, while dead corn plants will still look dead. Yield loss to frost damage in corn younger than V6 is related primarily to the degree of stand loss, not to the degree of leaf damage. Estimates of yield loss from leaf damage where the corn was 6-leaf collars or older can be made with the same defoliation table used for assessing hail damage to corn (<http://www.kingcorn.org/news/articles.98/p&c9816.html>).

### ***Replant Decisions***

This part of the discussion is always a controversial issue, because it involves plant physiology, economics and emotions. It seems to me that most folks do not have enough optimism in a young corn plant's ability to recover from above-ground damage.

Seven years ago, I talked a muck farmer out of replanting a field of three to four-leaf collar corn that had been frosted to the ground in late May. I will admit that the 100 acre field looked desolate at the time, but the plants recovered completely. An adjacent field that had been patched in alongside or on top of the original rows recovered completely also, resulting in a field with twice the intended plant population (original + replant populations).

An important replant consideration this year is that June is rapidly approaching. If even a half of a stand survives the frost damage, it will likely yield as well as a full stand replanted on May 30.

For those interested in trying to pencil out the important decision of whether or not to replant, ask for my worksheet publication AY-264, "Estimating Yield and Dollar Returns to Corn Replanting", available at your local Purdue Cooperative Extension Service office.

### ***Miscellaneous Issues***

Frosted corn will turn greenish-black during the first 24 hours, then slowly bleach to a straw color as it dries out. As the frosted leaf tissue in the whorl dries, the whorl will often develop a constricted 'knot' that may restrict expansion of the undamaged whorl tissue later on.

Usually, knotted corn plants will successfully recover as the expanding whorl tissue breaks these knots. Once in a great while, it may be necessary to mow a frosted corn field to cut off severely knotted leaf tissue. The key to deciding whether to mow or not is to allow the damaged field three to five days to show you how well it is recovering.

—R. L. (Bob) Nielsen, Agronomy Dept., Purdue University

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